

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
12 May 2005 (12.05.2005)

PCT

(10) International Publication Number  
**WO 2005/041872 A2**

(51) International Patent Classification<sup>7</sup>: **A61K**

(21) International Application Number: **PCT/US2004/035065**

(22) International Filing Date: 22 October 2004 (22.10.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/513,372	22 October 2003 (22.10.2003)	US
60/553,657	16 March 2004 (16.03.2004)	US
60/567,397	30 April 2004 (30.04.2004)	US

(71) Applicant (for all designated States except US): **UNIVERSITY OF ROCHESTER [US/US]**; 518 Hylan Building, Rochester, NY 14627 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **PHIPPS, Richard, P. [US/US]**; 26 Greylock Ridge, Pittsford, NY 14534 (US). **SIME, Patricia, J. [US/US]**; 26 Greylock Ridge, Pittsford, NY 14534 (US). **BLUMBERG, Neil [US/US]**; 4 Hidden Springs Drive, Pittsford, NY 14534 (US).

(74) Agents: **MERKEL, Edwin, V. et al.**; Nixon Peabody LLP, Clinton Square, P.O. Box 31051, Rochester, NY 14603-1051 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2005/041872 A2

(54) Title: USE OF PEROXISOME PROLIFERATOR-ACTIVATED RECEPTOR GAMMA (PPAR $\gamma$ ) AND/OR RETINOIC ACID RECEPTOR (RXR) AGONISTS TO INHIBIT PLATELET FUNCTIONS

(57) Abstract: Methods of inhibiting mammalian platelet release of CD40 ligand, thromboxanes, or prostaglandin E2, or surface expression of CD40 ligand that involve contacting mammalian platelets with an effective amount of a PPAR $\gamma$  agonist, an RXR agonist, or a combination thereof. As a consequence of inhibiting CD40 ligand and thromboxane release, the present invention allows for inhibition of thrombus formation by (or clotting activities of) activated platelets, as well as treating or preventing CD40 ligand-mediated conditions and/or thromboxane-mediated conditions. Use of PPAR $\gamma$  agonist, RXR agonist, and/or inducers of PPAR $\gamma$  agonist in preparing a stored blood product, and for diagnostic testing of patient samples is also disclosed.